

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of the claims and listing of the claims in the application:

1.-17 (Cancelled)

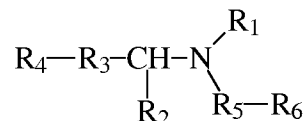
18. (Original) A method for inhibiting Multiple Sclerosis, comprising administering to a patient an effective amount of a deprenyl compound, such that Multiple Sclerosis is inhibited.

19. (Original) The method of claim 18, wherein said deprenyl compound is (-)-desmethyldoprenyl.

20. (Original) The method of claim 18, wherein said patient is a human.

21.-25. (Cancelled)

26. (New) The method of claim 18, wherein said deprenyl compound is a structure of the formula:



wherein

R<sub>1</sub> is hydrogen, alkyl, alkenyl, alkynyl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxy carbonyl, or aryloxy carbonyl;

R<sub>2</sub> is hydrogen or alkyl;

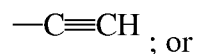
R<sub>3</sub> is a single bond, alkylene, or -(CH<sub>2</sub>)<sub>n</sub>-X-(CH<sub>2</sub>)<sub>m</sub>;

in which X is O, S, or N-methyl; m is 1 or 2; and n is 0, 1, or 2;

R<sub>4</sub> is alkyl, alkenyl, alkynyl, heterocyclyl, aryl or aralkyl; and

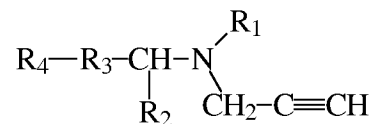
R<sub>5</sub> is alkylene, alkenylene, alkynylene and alkoxyethylene; and

R<sub>6</sub> is C<sub>3</sub>-C<sub>6</sub> cycloalkyl or



R<sub>2</sub> and R<sub>4</sub>-R<sub>3</sub> are joined to form, together with the methine to which they are attached, a cyclic or polycyclic group;  
and pharmaceutically acceptable salts thereof.

27. (New) The method of claim 18, wherein R<sub>1</sub> is a group that can be removed *in vivo*.
28. (New) The method of claim 18, wherein R<sub>1</sub> is hydrogen.
29. (New) The method of claim 18, wherein R<sub>1</sub> is alkyl.
30. (New) The method of 18, wherein R<sub>1</sub> is methyl.
31. (New) The method of claim 18, wherein R<sub>2</sub> is methyl.
32. (New) The method of claim 18, wherein R<sub>3</sub> is methylene.
33. (New) The method of claim 18, wherein R<sub>4</sub> is aryl.
34. (New) The method of claim 18, wherein R<sub>4</sub> is phenyl.
35. (New) The method of claim 18, wherein R<sub>5</sub> is methylene.
36. (New) The method of claim 16, wherein R<sub>6</sub> is  $\text{—C}\equiv\text{CH}$ .
37. (New) The method of claim 18, wherein the deprenyl compound is represented by the structure:



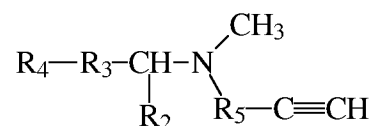
in which

R<sub>1</sub> is hydrogen, alkyl, alkenyl, alkynyl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxy carbonyl, or aryloxy carbonyl;

R<sub>2</sub> is hydrogen or alkyl;

R<sub>3</sub> is a bond or methylene; and  
R<sub>4</sub> is aryl or aralkyl; or  
R<sub>2</sub> and R<sub>4</sub>- R<sub>3</sub> are joined to form, together with the methine to which they are attached, a cyclic or polycyclic group;  
and pharmaceutically acceptable salts thereof.

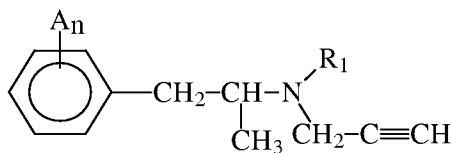
38. (New) The method of claim 18, wherein the deprenyl compound is represented by the structure:



in which

R<sub>2</sub> is hydrogen or alkyl;  
R<sub>3</sub> is a bond or methylene; and  
R<sub>4</sub> is aryl or aralkyl; or  
R<sub>2</sub> and R<sub>4</sub>- R<sub>3</sub> are joined to form, together with the methine to which they are attached, a cyclic or polycyclic group; and  
R<sub>5</sub> is alkylene, alkenylene, alkynylene and alkoxylenes;  
and pharmaceutically acceptable salts thereof.

39. (New) The method of claim 18, wherein the deprenyl compound is represented by the structure:



in which

R<sub>1</sub> is hydrogen, alkyl, alkenyl, alkynyl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxy carbonyl, or aryloxy carbonyl;  
A is a substituent independently selected for each occurrence from the group consisting of halogen, hydroxyl, alkyl, alkoxy, cyano, nitro, amino, carboxyl, -CF<sub>3</sub>, or azido;  
n is 0 or an integer from 1 to 5;  
and pharmaceutically acceptable salts thereof.